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PREP SESSION PHYSIOLOGICAL MONITORING

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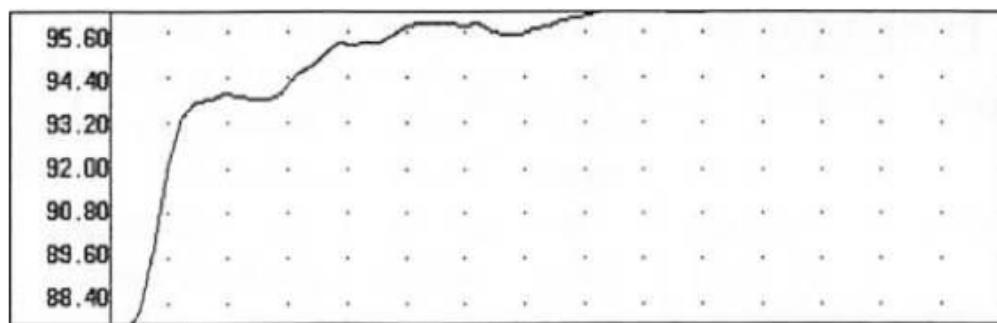
One of the most valuable opportunities for personal development offered by The Monroe Institute is the PREP (Personal Resource Exploration Program) session in the Institute laboratory'. Skip Atwater takes us behind the scenes with a detailed examination of the physiological monitoring that forms the foundation of these forays into inner space.

A Personal Resources Exploration Program (PREP) session is a personalized Hemi-Sync® audio-guidance program conducted in our laboratory. An experienced monitor guides the PREP participant through a custom-tailored HemiSync exploration spanning all Focus levels. A J&J 1-330 Physiological Monitoring System is used to record peripheral skin temperature (TEMP), galvanic skin responses (GSR), and skin potential voltage (SPV) in a session. What these measurements are and how we interpret and use them are illustrated below. Remember, the graphs show general tendencies and are not goals for an "ideal" session. Instead, the highly individualized patterns are interpreted on a case-by-case basis using established parameters.

TEMP

Warming of the extremities (hands and feet) is a strong indicator of physical relaxation. This peripheral warming is due to increased blood flow through the capillaries as a result of muscular relaxation. This natural warming is sometimes referred to as the relaxation response. Peripheral warming has also proved to be a reliable indicator of theta brain-wave states. People frequently move into a theta brain-wave rhythm after maintaining a warming above 95°F for a few minutes. In PREP sessions, a rise in hand and finger temperature typically reflects the emergence of states of consciousness favorable to enhanced perception. Figure 1 shows such a warming pattern.

Figure 1



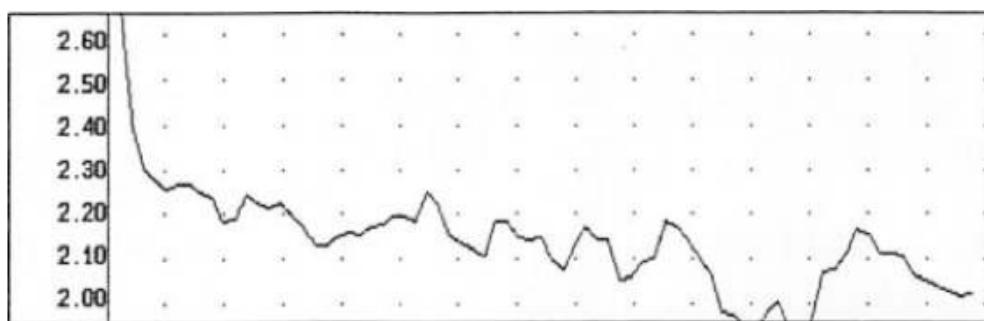
Electrical activity on the skin may be due to sweat gland activity (sudorific) or to other causes (nonsudorific). For our purposes, it is crucial to discriminate between the two origins. Sudorific skin potentials are indicators of anxiety levels, mental arousal, and emotional reactivity. Nonsudorific skin potentials, on the other hand, are associated with ovulation, tissue regeneration, and atypical growth, as well as changes in levels of consciousness.

GSR

To quantify sudorific activity, skin resistance or its inverse, skin conductance, is measured by applying a small, constant current through two noninvasive electrodes placed on the fingers. Short-duration changes in resistance usually peak in about one or two seconds and are known as galvanic skin responses (GSR). The general amount of resistance that changes slowly is termed the skin resistance level. As GSR conductance decreases, one becomes less anxious, mentally sedate, and emotionally passive. Figure 2 illustrates a slowly decreasing skin conductance level over the period of a typical PREP session.

Although the trend shows decreasing levels, momentary elevations in skin conductance reveal arousal periods related to increased emotional reaction to mental experiences.

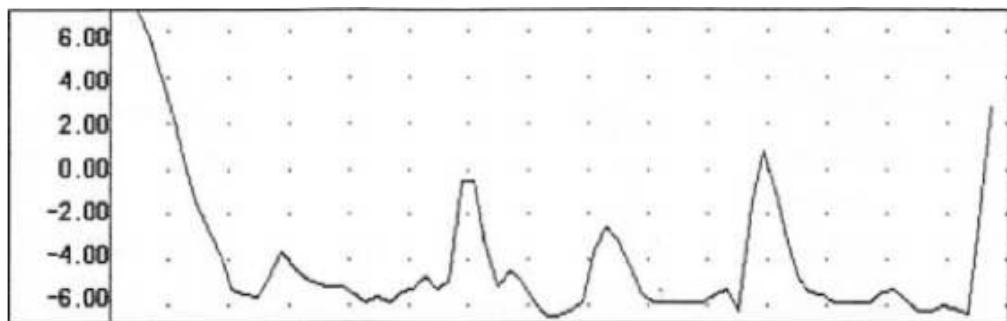
Figure 2



SPV

Nonsudorific activity is measured by the direct current voltage between electrodes on the fingers. Voltage differences of relatively short duration are known as skin potential responses. Voltage differences of long duration are referred to as skin potential levels. Records of both nonsudorific electric variables are called skin potential voltage (SPV) measurements. Independent SPV response variations or wave forms indicate mental activity. Shifts in consciousness are indicated by substantial changes in SPV levels. Occasionally, SPV levels reverse polarity. These polarity reversals indicate changes in the participant's perspective. Figure 3 shows changes in skin potential levels. A voltage reversal from positive to negative recorded early in the session evidences a discrete change in awareness level. The use of physiological monitoring is especially beneficial to real-time facilitation of PREP sessions.

Monitors can tell when an individual is relaxed, when he/she "moves" from experience to experience, and when to ask about the experience. Participants receive an audiotape of their session and a printed report of a representative segment showing observed physiological changes. The printout includes key phrases from the participant's conversation with the monitor. Time for debriefing at the conclusion of the session allows for further grounding and integration.



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